

Listing of Claims:

1.-16. (canceled)

17. (currently amended) An apparatus for injection-compression molding of a molded part, comprising:

a mold including first and second plates having opposing end faces defining a mold parting plane for opening and closing the mold, wherein said opposing end faces have a first negative form of the molded part to be produced and a gate through which a molding composition is introducible;

a first threaded screw drive assembly connected to one of said first and second plates including a threaded screw drive, a gear mechanism connected to said threaded screw drive, and a controlled drive operatively connected to said threaded screw drive via said gear mechanism for positioning said one of said first and second plates;

a mold insert having a second negative form of the molded part to be produced and arranged in said mold; and

a second threaded screw drive assembly connected for positioning said second negative form of said mold insert relative to said first negative form while said first and second plates are held in a closed position, wherein a molding composition introduced into the cavity is compressible by operation of said second threaded screw drive during molding.

18. (previously presented) The apparatus of claim 17, wherein said first threaded screw drive assembly comprises a plurality of screw drive assemblies connected to said one of said first and second plates.

19. (previously presented) The apparatus of claim 17, further comprising a third threaded drive assembly, wherein said first threaded screw drive assembly is operatively connected for positioning said first plate and said third threaded screw drive assembly is operatively connected for positioning said second plate.

20. (previously presented) The apparatus of claim 17, wherein said threaded

screw drive comprises a spindle nut connected to said one of said first and second plates.

21. (previously presented) The apparatus of claim 17, wherein said threaded screw drive comprises a threaded spindle connected to said one of said first and second plates.

22. (canceled)

23. (previously presented) The apparatus of claim 17, further comprising a die arranged in one of said first and second plates having said first negative form, wherein said threaded screw drive is connected to said die.

02 24. (previously presented) The apparatus of claim 17, further comprising heating elements arranged in said first and second plates.

25. (previously presented) The apparatus of claim 17, wherein said gear mechanism is a planetary gear mechanism.

26. (previously presented) The apparatus of claim 17, further comprising at least one ejector arranged in said threaded screw drive assembly.

27. (previously presented) A method for injection-compression molding a molded part using a mold having first and second plates with opposing end faces defining a mold parting plane for opening and closing the mold, the opposing end faces having a first negative form of the molded part and gate through which molding composition is introducible, a first threaded screw drive assembly connected to one of the first and second plates, a gear mechanism connected to the threaded screw drive, and a controlled drive operatively connected to the threaded screw drive for positioning the one of the first and second plates, a mold insert having a second negative form of the molded part to be produced and arranged in said first and second plates and a second threaded screw drive assembly connected for positioning said mold insert such that said first and second negative forms are properly oriented, said method comprising the steps of:

- a. moving the first and second plates to a closed position and forming a cavity between the first and second plates and the mold insert;
- b. injecting a molding composition into the cavity;
- c. moving the mold insert having the second negative form of the molded part to be produced using the second threaded screw drive assembly while the first and second plates are held in the closed position to reduce the size of the cavity and compress the molding composition in the cavity; and
- d. controlling the movement of the first and second plates and the mold insert in steps a. and c. by one of a movement program and in dependence on a process parameter.

28. (previously presented) The method of claim 27, wherein said step d. comprises controlling the movement of the first and second screw drive assemblies in dependence on a pressure present in the mold.

C² 29. (previously presented) The method of claim 27, wherein said step d. comprises controlling the movement of the first and second screw drive assemblies in dependence on a power consumption of a motor driving the respective first and second threaded drive assemblies.

30. (previously presented) The method of claim 27, wherein said step d. comprises controlling the movement of the first and second threaded drive assemblies in dependence on a force on the respective first and second threaded screw drive assemblies.

31. (previously presented) The method of claim 27, wherein said step c. comprises moving the mold insert via a step by step motion.

32. (previously presented) The method of claim 31, wherein said step c. comprises moving the mold insert in a step by step motion comprising steps of less than 1 micrometer.